

FHWA

AASHTO SOC Update

Rob Elliott, PE
Team Manager, FHWA
Construction and Project Management Technical Service Team
404-562-3941 or rob.elliott@dot.gov



U.S. Department
of Transportation

**Federal Highway
Administration**

Outline

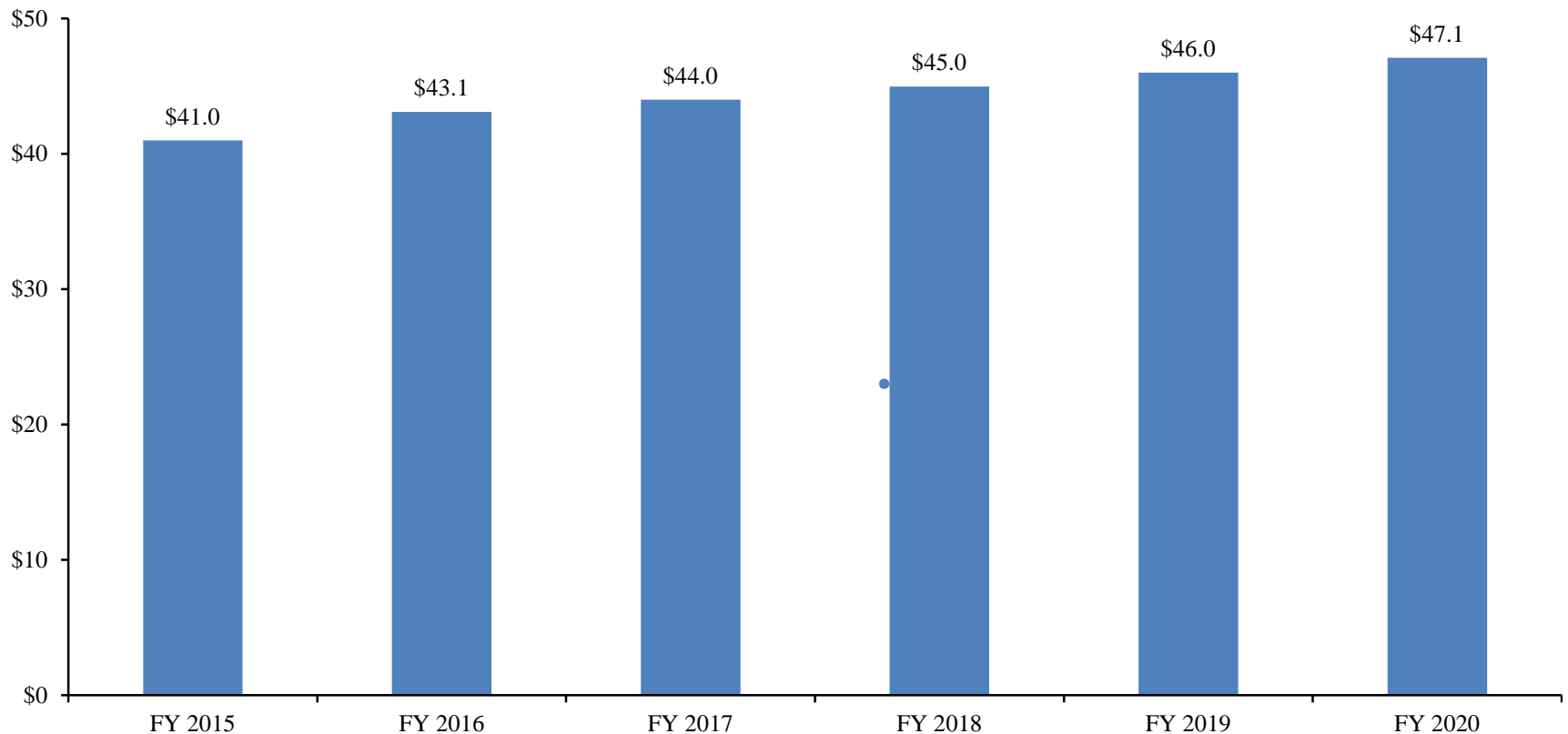
- Fixing America's Surface Transportation (FAST) Act (PL 114-94)
 - Signed by President Obama on December 4, 2015
 - Provides 5 year of funding certainty for infrastructure planning and investment
 - Authorized \$305 B (all modes) over FY 2016-2020
 - \$70 B in transfers to keep the Highway Trust Fund solvent
- Update of other activities
 - Every Day Counts 4
 - Alternative Contracting Methods technical assistance
 - Unmanned Aerial Vehicles (UAV) Strategic Implementation Team (SIT)
 - Work Zone Management
 - Research
 - NHI – Training

\$305 B (all modes) over FY2016-2020

Program	5-Year Funding (billions)
Federal Highway Administration	\$ 226.3
Federal Transit Administration	61.1
Federal Motor Carrier Safety Administration	3.2
Pipeline and Hazardous Materials Administration	0.4
National Highway Traffic Safety Administration	4.7
Federal Railroad Administration	10.3
Total	305.0

Highway contract authority grows each year

Highway Authorizations from Trust Fund (billions)



Federal/Tribal Lands Program Changes

- Tribal Transportation Program
 - Less funding for BIA/FHWA oversight; more funding for tribal bridges
 - New annual reporting by Tribes
- Federal Lands Transportation Program
 - New partners: Bureau of Reclamation and other independent agencies
 - Dedicated funds for Park Service, Fish & Wildlife, Forest Service | **NEW**
- Emergency Relief
 - Clarified eligibility for debris removal on ERFO-eligible facilities
 - Access program facilities no longer eligible for 100% Federal share
- Nationally Significant Federal Lands & Tribal Projects | **NEW**
 - Discretionary grants for large Federal and tribal lands projects
 - All funds subject to appropriation

Other Provisions

- Specifically allows multiple similar bridge projects to be handled (“bundled”) into a single project
- On NHS, design "shall consider" (previously “may take into account”) —
 - constructed/natural environment
 - environ., scenic, aesthetic, historic, community, & preservation impacts
 - access for other modes
 - cost savings via flexibility in current design guidance/regulations | *NEW*
 - Encouragement for States/MPOs to adopt standards for Fed. projects that accommodate motorized and non-motorized users
- Encouragement of vegetation management practices that improve habitat and forage for pollinators

Update of Other Activities

- MAP-21
- Major Projects
- Every Day Counts 4 and 3
- Unmanned Aerial Vehicles (UAV)
- Work Zone Management
- Alternative Contracting Methods
- Research
- NHI – Training



MAP-21

- Construction Manager / General Contractor
 - A Notice of Proposed Rulemaking was published on June 29, 2015
 - Nine State Transportation Agencies and six industry associations submitted comments
 - A late 2016 final rule is anticipated

Major Projects

- Project Management Plan Guidance Update
 - Clarify and Simplify Guidance
 - Less Prescriptive
 - Draft posted to Federal Register
 - Final anticipated early 2017

EDC Process

- Identification of technology (Complete)
 - Market readiness activities
 - Public and partner input
- Formation of implementation team (In Process)
- Implementation plan development (Future)
 - 2 Virtual FHWA Summits (September)
 - 7 In-person Regional Summits (October, November, & December)
 - Final plan (January, 2017)
- Perform activities in implementation plan (Future)
 - 2017 and 2018



Every Day Counts – 4 (2017-2018)

- Accelerating Traffic Incident Management Data Collection
- Advanced Hydraulic Modeling Tools
- Automated Traffic Signal Performance Measures (ATSOMs)
- Community Connections
- Data-Driven Safety Analysis (DDSA)
- E-Construction and Partnering: A Vision for the Future
- Integrating NEPA and Permitting
- Pavement Preservation (When, Where, and How)
- Road Weather Management – Weather Savvy Roads
- Safe Transportation for Every Pedestrian (STEP)
- Ultra-High Performance Concrete Connections for PBES



E-Construction and Partnering: A Vision for the Future

- State DOTs have traditionally administered contracts and managed construction of highway projects using extensive, paper-based documentation systems. By using digital e-Construction technologies, DOTs can enhance partnering among stakeholders on project teams, while improving communications and workflow to streamline the delivery of projects.



Pavement Preservation (When, Where, and How)

- Applying a pavement preservation treatment at the right time (when), on the right project (where), with quality materials and construction (how) is a critical investment strategy to help meet performance expectations. This innovation helps deploy an array of different analyses, treatments, and construction methods to help infrastructure owners achieve and sustain a desired state of good road repair despite tight budgets.

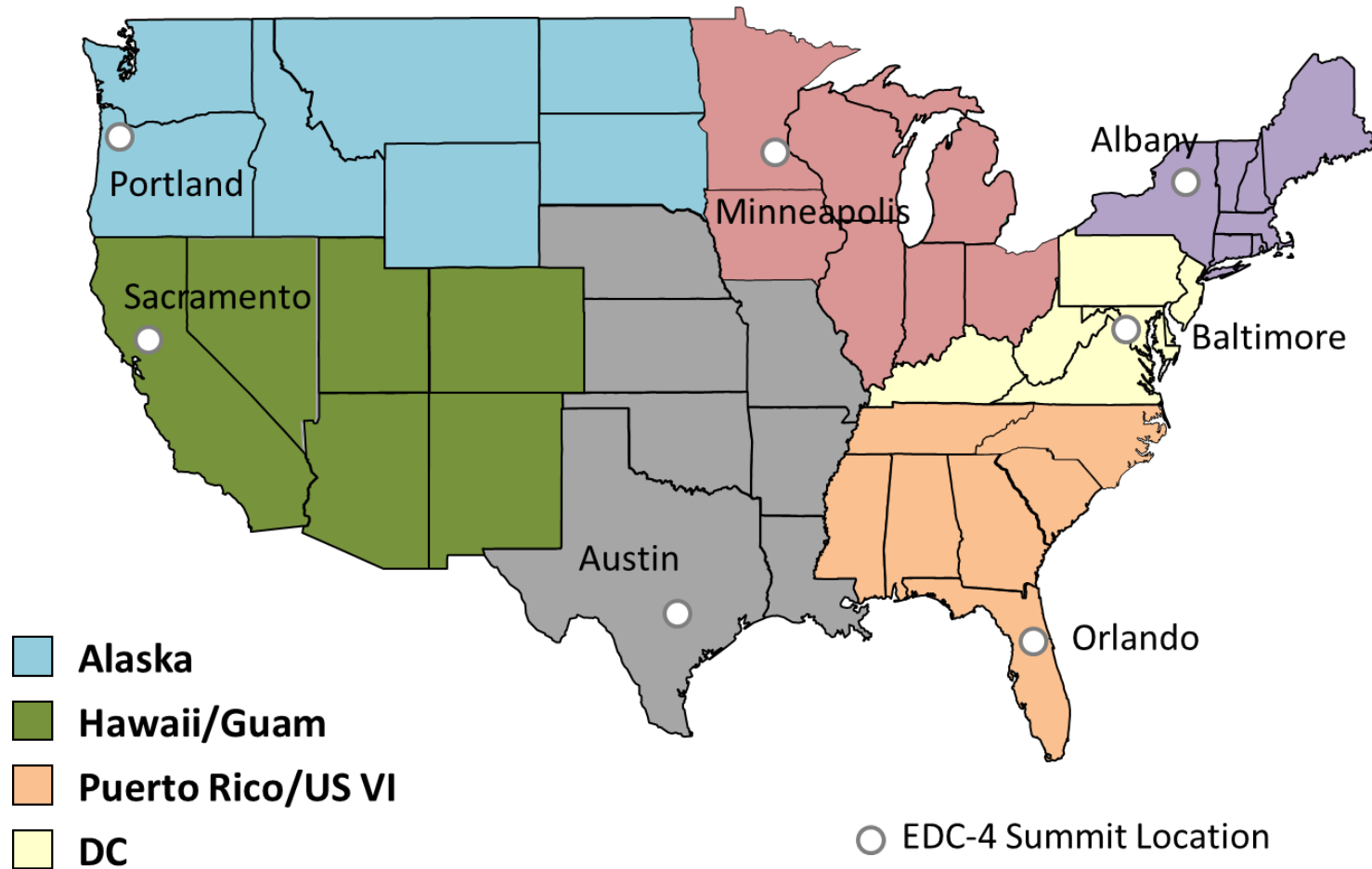


Ultra-High Performance Concrete Connections for PBES

- Prefabricated bridge elements and systems (PBES) offer superior durability and speed the onsite construction of bridges. The durability of prefabricated spans and how quickly they can be constructed is dependent on the connections between the elements. Ultra-high performance concrete can be used to help provide simple, strong, and durable connections for prefabricated bridge elements.



EDC-4 Summits



EDC-3 (2015-2016)

- Select Construction Innovations
 - 3D Engineered Models: Schedule, Cost and Post-Construction
 - e-Construction
 - Ultra-High Performance Concrete Connections for Prefabricated Bridge Elements (UHPC)



Market Readiness Technologies

- Risk Based or Probabilistic Cost Estimation
- Index based cost estimation
- Bridge Bundling
- Unmanned Aerial Vehicles
- e-Ticketing

Unmanned Aerial Vehicle (UAV) Strategic Implementation Team (SIT)

- Review of FHWA laws, regulations, policies and guidance to identify inhibiting factors
- Make recommendations to FHWA Program Offices to allow the use of the devices
- Concludes November, 2016



Work Zone Management

- Numerous guidance and training resources related to short term/maintenance work are now available on National Work Zone Safety Information Clearinghouse (www.workzonesafety.org)
- Portable Positive Protection: A Guide for Short Duration and Short Term Work Zones
- Maintenance Work Zone Safety: Pocket Guide of MUTCD Guidance on Temporary Traffic Control
- Temporary Traffic Control Plan Development Workshop
- Guidelines on Rolling Roadblocks for Work Zone Applications
- Roadway Safety+ (RSP+) Basic Awareness Course
- Work Zone Safety: Temporary Traffic Control for Maintenance Operations
- Rolling Roadblocks for Work Zones Applications Training Module
- A Guide to Short-Term Stationary, Short-Duration, and Mobile Work Zone Traffic Control

Alternative Contracting Methods-ACMs

- FHWA's Every Day Counts-2 initiative has wrapped up, but funds are still available for training, workshops, peer exchanges.
 - NE D/B Peer Exchange held in May, 2016
- State DOTs interested in pursuing Design-Build or Construction Manager / General Contractor delivery or Alternative Technical Concepts should contact:

Jeff Lewis

FHWA, Resource Center-CPM Team

916-498-5035 or jeff.lewis@dot.gov

[FHWA ACM Library:](#)

<http://www.fhwa.dot.gov/construction/contracts/acm/>

Research

- Quantification of Cost, Benefits and Risk Associated with Alternate Contracting Methods and Accelerated Performance Specifications
- Manual Using Non-destructive Testing And Case Studies On Non-structural Precast Concrete Products In Highway Construction
- Guide for Civil Integrated Management-CIM in Departments of Transportation

Contract Administration Core Curriculum

- Based on the updated CACC Manual (2014), the NHI Course was overhauled following the cradle to grave project delivery process
- Positive Learner Feedback
- Free roll-out is complete
 - Oct 2014 and Apr 2016
 - Delivered to every State, Virgin Islands, Guam, DC, and PR
- NHI Course Registration (i.e. paid delivery) now applies
 - Over a dozen delivered so far
 - Cost \$235 per person
 - 20 learners minimum (30 max)

Additional Construction Focused Courses

NHI

- Principles and Applications of Highway Construction Specifications (NHI 134001)
- Utility Coordination for Highway Projects (NHI 134006)
- Environmental Factors in Construction & Maintenance (NHI 134080)

FHWA

- Construction Program Management and Inspection Guide
- Federal Aid Essentials: Federal-aid simplified
<http://www.fhwa.dot.gov/federal-aidessentials/>

Conclusion



Thank you!

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<http://www.fhwa.dot.gov/resourcecenter/>